



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,932	09/17/2001	Hendrikus Jan Kapaan	110191	4418
25944	7590	08/23/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			KRAMER, DEVON C	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/889,932

Applicant(s)

KAPAA ET AL.

Examiner

Devon C Kramer

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 10, 11 and 29-33 is/are rejected.
- 7) ☒ Claim(s) 4-6, 8, 9 and 12-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

- 1) Claims 7-10 and 33 are objected to because of the following informalities:

Claim 7 line 2, "the bearing" should be --the support bearing--;

Claim 8 line 2, "the outer ring" should be --an outer ring--;

Claim 33 line 11, "the rotor" should be --a rotor--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

- 2) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 3) Claims 1-3, 7, 10-11, 30 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Koeth et al (DE 19807328). Please note that US 6349801 has been used as an English equivalent.

In reference to claims 1 and 33, Koeth et al provides an actuator (figure 4) with a claw piece (10), comprising: a housing accommodating a screw mechanism (36); a drive including a motor (20); the screw mechanism including a nut (42) and a screw (36), the screw rotatably supported relative to the housing, such that upon rotation of the screw relative to the nut a linear movement of one of the nut is obtained (col. 5 lines 21-28); and a rotor (26, 98) of the drive is rotatably supported on the screw which is

Art Unit: 3683

rotatably supported relative to the housing; the rotor being coaxial with respect to the screw.

In reference to claims 2 and 3, Koeth et al teach a support bearing (52, 32) for the screw and wherein the rotor is supported by an auxillary bearing. (see figure 4).

In reference to claim 7, Koeth et al provides an actuator where the outer ring of the bearing supports a rotatable sleeve (96) which is in connection with the rotatable component of the drive.

In reference to claim 10, Koeth et al provides an actuator where the sleeve is connected to the rotor of the motor.

In reference to claim 11, Koeth et al provides an actuator where the nut and the screw are rotatably supported both according to an axis parallel with respect to the linear movement, and according to at least on axis transverse with respect to the linear movement.

In reference to claim 30, the examiner takes official notice that elements of gearing and parts under a high load are conventionally formed by hard turning.

Art Unit: 3683

***Claim Rejections - 35 USC § 103***

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koeth et al (DE 19807328) in view of Airheart (4180146).

Koeth et al lacks the teaching of a bore containing a grease dosing unit.

Airheart teaches the use of a grease dosing unit (94).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the assembly of Koeth et al with a grease dosing unit as taught by Airheart in order to provide a means to keep the rotating parts lubricated. It is well known in the art of gearing to maintain a sufficient amount of grease or oil on the mating surfaces.

6) Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koeth et al (DE 19807328) in view of Chaireire (5293966).

It is known in the art to produce load bearing parts of high strength material.

Koeth et al is silent to the material used to produce the components of the device.

Chaireire teaches the use of producing load bearing parts out of a carbon.

Art Unit: 3683

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the load bearing parts of Koeth et al with carbon material as taught by Chareire, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshinb, 125 USPQ 416.

7) Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koeth et al (DE 19807328) in view of Tanaka (6089359).

It is known in the art to use an encoder to measure rotation. Koeth et al lacks the teaching of an encoder for measuring relative rotation.

Tanaka teaches the use of an encoder for measuring relative rotation.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the actuator of Koeth et al with the encoder as taught by Tanaka in order to measure the relative position of the internal parts.

### ***Allowable Subject Matter***

Claims 4-6, 8-9, 12-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Art Unit: 3683

13) Applicant's arguments with respect to claim 1-33 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

14) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Drennen et al provides a nut screw mechanism.

15) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

16) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 703-305-0839. The examiner can normally be reached on Mon-Fri 8-4.

Art Unit: 3683

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DK



Handwritten signature and date: 8/18/04